

Amendments of the Specification:

Please replace paragraph number three (3) with the following amended paragraph:

A new synthesis approach to forming energetic materials, specifically pyrotechnics, explosives, and propellants, using the chemical sol-gel methodology is described and claimed in U.S. Application Serial No. 08/926,357 filed September 9, 1997 and now U.S. Patent No. 6,666,935, entitled "Sol-Gel Manufactured Energetic Materials" and in International Application No. PCT/US98/18262 (WO 99/12870) published March 18, 1999. In energetic composites we can control oxidizer-fuel balances at the nanometer scale.

Please delete Table 1 in its entirety and replace it with the following:

Precursor salt	Solvent	H ₂ O/Fe	Gel formation	<i>t</i> _{gel} (minutes)
Fe(NO ₃) ₃ •9H ₂ O	water	58	no	-
Fe(NO ₃) ₃ •9H ₂ O	methanol	9	no	-
Fe(NO ₃) ₃ •9H ₂ O	ethanol	9	yes	8
Fe(NO ₃) ₃ •9H ₂ O	1-propanol	9	yes	3.5
Fe(NO ₃) ₃ •9H ₂ O	<i>t</i> -butanol	9	yes	2
FeCl ₃ •6H ₂ O	water	55	yes	3
FeCl ₃ •6H ₂ O	acetone	6	yes	-(a)
FeCl ₃ •6H ₂ O	methanol	6	yes	23
FeCl ₃ •6H ₂ O	methanol	9	yes	6.5
FeCl ₃ •6H ₂ O	ethanol	6	yes	25
FeCl ₃ •6H ₂ O	ethanol	9	yes	10
FeCl ₃ •6H ₂ O	1-propanol	6	yes	60
FeCl ₃ •6H ₂ O	1-propanol	9	yes	6
FeCl ₃ •6H ₂ O	<i>t</i> -butanol	6	no	-(b)
FeCl ₃	water	49	yes	2
FeCl ₃	ethanol	0	no	-
FeCl ₃	ethanol	9	yes	5

Please amend Table 4 as follows:

Epoxide	t_{gel} (minutes)
butadiene monoxide	0.33
cyclohexene oxide	0.45
<i>cis</i> -2,3-epoxybutane	0.72
propylene oxide	1.5
1,2-epoxybutane	2.5
1,2-epoxypentane	4.8
2,3 epoxy(propyl) benzene	27
<u>2,3 epoxy(propyl)benzene</u>	<u>27</u>
glycidol	62
epichlorohydrin	85
epifluorohydrin	82
epibromohydrin	109
trimethylene oxide	320

Please replace the paragraph immediately after Table 7 on page 24, amended as follows:

Significant application of nanostructured metal-oxides: We have utilized sol-gel chemistry to produce energetic nanocomposites of the general metal-oxide metal composition formula $M_{1x}O_y/M_2$ $(M_1)_xO_y/M_2$. When ignited there is rapid exchange of the oxygen between metals with significant energy release. The sol-gel method is a safe, inexpensive, convenient, and flexible route to synthesis of these types of energetic nanocomposites. It is a suitable method to control the composition, morphology, and density of the final material, all of which can affect the energetic and performance properties of the resulting pyrotechnic.